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ABSTRACT

Throughout the 1978-1979 school year, four teachers in District 20 in New York City were utilized for the purpose of developing math skills in selected students in four elementary schools. The target students were removed from class for the additional instruction that their needs required. Each teacher met with five groups of students per school day. The periods ran from forty to forty-five minutes for a total of 200 to 225 minutes of math instruction per week for each group. Teacher-student ratio was approximately 1 to 12. Growth in the mean scores for pre and post tests was noted for all the schools. The Math Success Program as it is conducted in District 20 continues to be an impressive success. (Author/RLV)

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FINAL EVALUATION REPORT

1978-79

COMMUNITY SCHOOL DISTRICT 20K

MATH SUCCESS

TITLE I- 5071-91625

DR. FRANCIS J. LODATO- CONSULTANT EVALUATOR

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The Program

Throughout the school year 1978-1979 four teachers in District 20 were utilized for the purpose of developing math skills in selected students from P.S. 140, 160, 164,179. The target students were removed from class for the additional instruction that their needs required. This program serviced 240 pupils (of which 211 pupils completed the program), in grades three through six in the four schools previously noted.

Each teacher met five groups of students per school day. Generally the periods ran from forty to forty-five minutes for a total of 200 to 225 minutes of math instruction for each group. The ratio of teachers to students was approximately one teacher for twelve students.

Rosters, test data, individual educational prescriptions, record folders containing samples of students' work, progress charts, record charts and whatever information was deemed pertinent to each case were kept meticulously by each teacher. The material in the student folders was reviewed by the consultant evaluator who visited each of the schools wherein the program was conducted.

The loss of the paraprofessional caused each teacher to spend more time on record keeping than had been done in the past. The loss of the paraprofessionals also made it necessary for the teacher to spend teaching time with larger groups whereas previously if a particular student was experiencing any unusual difficulties, either the teacher or para was able to work with the student on an individual basis.

In addition to the instructional program the following workshops were conducted:

Month		Subject
September	1978	Orientation and Implementation of Program Goals and Objectives
October	1978	Pre-Test Administration, Grouping, Rosters, etc.
November	1978	Results of Testing, Workshop - Exchange of Teacher Experiences, Methods, etc.
December	1978	Small Group and Individual Instructional Techniques and Methods Demonstration
January	1979	Workshop - Teacher-Made Materials
February	1979	Appraisal of System for Achieving Results
March	1979	Reports of Results of Re-implementation
April	1979	Teacher Demonstrations
May	1979	Preparation for Post-Testing Recording
June	1979	Evaluation

These workshops which were coordinated by the District's Math Coordinator covered topics which dealt with the most current approaches to the teaching of mathematics. Topics such as writing the diagnostic prescription, preparing students in readiness skills and grouping methods all were evaluated favorably by the attending teachers. All of the participating principals spoke favorably about the program as it functioned in their respective schools.

Results

The following tables contain the results of the Stanford Achievement Test administered in both pre- and post-test forms. Each table (one per grade) presents the average scores for the individual schools as well as the average scores for the entire grade level.

Table I
Mean Scores of Grade Three Students on the Stanford Achievement Test (Primary I Form A)

School	No. of Pupils	PRE-TEST Concepts	Compu-tation	Total	POST-TEST Concepts	Compu-tation	Total
P.S. 160	14	1.6	1.9	1.7	2.7	3.0	2.9
P.S. 164	12	1.3	1.8	1.6	2.4	2.8	2.6
P.S. 140	31	1.6	2.0	1.8	3.3	3.2	3.3
P.S. 179	11	1.7	1.8	1.6	2.0	2.4	2.1
TOTAL	68	1.6	1.9	1.7	2.8	2.9	2.9

When comparing the average pre- and post-test scores for Math Concepts in Table I of all grade three students in the program an increase of 1.2 is observed. The average growth for these third graders in Computation was 1.0. From Table I it is found that the mean total growth was 1.2 in comparing pre- and post-test total math scores on the Stanford Achievement Test.

Table II
Mean Scores of Grade Four Students on the Stanford Achievement Test (Primary II Form A)

School	No. of Pupils	PRE-TEST Concepts	Compu-tation	Appli-cation	Total	POST-TEST Concepts	Compu-tation	Appli-cation	Total
P.S. 160	12	2.8	3.0	2.6	2.8	4.0	4.3	4.1	4.2
P.S. 164	20	2.3	2.8	2.1	2.4	3.4	3.9	2.8	3.4
P.S. 140	28	2.3	2.8	2.3	2.4	3.9	3.9	3.5	3.8
P.S. 179	12	2.3	2.1	2.7	2.3	3.3	3.4	3.3	3.3
TOTAL	72	2.4	2.7	2.4	2.4	3.7	3.9	3.4	3.7

A comparison of the mean pre- and post-test scores in Table II for all grade four pupils for Math Concepts indicates an increase of 1.3. A similar comparison of scores for Computation shows an average growth of 1.2. The smallest increase found in Table II of 1.0 is observed for the scores in Math Application. The average growth on the total math score is 1.3.

Table III
Mean Scores of Grade Five Students on the Stanford Achievement Test (Primary III Form A)

School	No. of Pupils	PRE-TEST Concepts	Compu-tation	Appli-cation	Total	POST-TEST Concepts	Compu-tation	Appli-cation	Total
P.S.160	10	3.4	3.5	3.1	3.4	3.9	4.0	3.5	3.8
P.S.164	18	3.3	3.9	3.7	3.6	5.0	6.1	5.0	5.3
P.S.179	12	2.7	2.8	2.8	2.8	3.4	3.4	3.1	3.4
TOTAL	40	3.2	3.5	3.3	3.3	4.2	4.8	4.0	4.3

The average growth for grade five students participating in this program for Math Concepts is 1.0 as shown in Table III. An increase of 1.3 is noted for scores in Computation. In comparing the pre- and post-test scores on the Stanford Achievement Test for Math Application a mean increase of 0.7 is noted. The mean growth for total math is 1.0 for these fifth grade students.

Table IV
Mean Scores of Grade Six Students on the Stanford Achievement Test (Intermediate I Form A)

School	No. of Pupils	PRE-TEST Concepts	Compu-tation	Appli-cation	Total	POST-TEST Concepts	Compu-tation	Appli-cation	Total
P.S. 160	14	4.0	4.0	3.7	3.9	4.9	5.2	5.0	5.1
P.S. 179	17	4.2	4.0	3.8	4.0	4.6	4.7	4.1	4.5
TOTAL	31	4.1	4.0	3.7	4.0	4.7	4.9	4.5	4.8

In Table IV the mean scores of grade six pupils on the Stanford Achievement Test in Math are presented. Upon comparison of the pre- and post-test scores for all thirty-one students it can be noted that an increase of 0.6 is observed for Math Concepts. The mean growth for Computation scores is 0.9. It is found that an average increase of 0.8 for both Math Application and total math scores was achieved by the sixth graders participating in this program.

Summary

The Math Success Program as it is conducted in District 20 continues to impress. The high level of organization of this program coupled with the conscientiousness, competence and dedication of the teachers involved is a credit to the administrators of the District. The conciseness of the records which were kept, the concern of the teachers for student progress are also essential ingredients for a successful educational undertaking.

Recommendations

1. If it is logistically possible and fiscally practical, this program should be expanded to meet the needs of students in other elementary schools throughout District 20.

2. Since the teachers valued the staff training sessions, perhaps these teachers could assist teachers in other schools throughout the District by disseminating information gathered at these training sessions to

the other teachers.

3. Beginning this program with the school year gave added stability and structure to this program. That procedure should be continued.